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#### NEWFOUNDLAND MOSSES COLLECTED BY MR. BAYARD LONG IN 1924-26.

EDWIN B. BARTRAM.

(Plate 158)

NEWFOUNDLAND seems to have been neglected by bryologists to a great extent and our knowledge of its moss flora is practically confined to the collections of the Rev. Charles A. Waghorne as recorded in Macoun's Catalogue of Canadian Plants, Part VI-Musci, supplemented by random collections in various herbaria and the treatment by Renauld & Cardot in Delamare's Florule de l'Isle Miquelon. Mr. Long, who accompanied Prof. Fernald and his associates in the expeditions to Newfoundland in 1924-25 and 26, was naturally preoccupied to a great extent with the flowering plants but generously collected the mosses as opportunity offered. A detailed account of these expeditions will be found in Prof. Fernald's thrilling notes of "Two Summers Botanizing in Newfoundland," reprinted from RHODORA, Vol. 28, Nos. 328-336, April-December 1926, as No. LXXII of the Contributions from the Gray Herbarium of Harvard University. Considering the fact that Mr. Long had no previous bryological experience the number of species represented is surprisingly large and the choice of material evidences a keen discrimination. The limestone areas of the northwest coast bordering the Straits of

Belle Isle were naturally the most productive of especially interesting arctic types such as Distichium Hagenii, Dicranum elongatum, Dicranum groelandicum, Desmatodon systylius, Stegonia latifolia, Bryum Longii etc., while the southern sections of the Island are represented by more familiar Canadian types including Dicranum majus, Dicra-

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nella cerviculata, Mnium hornum, Ulota Ludwigii, Ulota phyllantha, Pogonatum capillare etc.

While the following list shows to an interesting extent the relative abundance of the various species in the localities from which collections were made it is, of course, far from a complete reflection of the mosses of Newfoundland and it seems highly probable that the calcareous forelands of the northwestern coast will amply reward

further bryological activities in that region.

The list comprises 165 species and varieties of which one, *Bryum* Longii, is described as new. A complete series of specimens has been deposited with the Academy of Natural Sciences in Philadelphia and a nearly complete set has been retained by the writer.

The sequence of genera is that used by Brotherus in Engler & Prantl, Pflanzenfamilien, Ed. 2, Vols. 10 and 11 and excepting *Sphagnum*, which follows the treatment of Dr. A. LeRoy Andrews in the North American Flora Vol. 15, Part 1, the nomenclature is the same as used in these volumes.

#### SPHAGNACEAE

SPHAGNUM PALUSTRE L. South Hill, St. John's, Aug. 14, 1924;
Trepassey, Aug. 16, 1924; Bay Bulls, Aug. 22, 1924.
SPHAGNUM IMBRICATUM Hsch. South Hill, St. John's, Aug. 14, 1924.

SPHAGNUM LINDBERGII Schp. Blanc Sablon, Labrador, Sept. 3, 1925.

SPHAGNUM PULCHRUM (Linbd.) Warnst. Bay Bulls, Aug. 22, 1924. SPHAGNUM TENELLUM Pers. Port aux Basques, July 21, 1924; Savage Cove, Aug. 7, 1924.

SPHAGNUM SUBSECUNDUM Nees. Quirpon Island, Aug. 7, 1925. SPHAGNUM PYLAESII Brid. Port aux Basques, July 21, 1924; Burgeo, Sept. 9, 1926; Sept. 11, 1926.

SPHAGNUM WARNSTORFII Russow. Bay Bulls, Aug. 22, 1924. SPHAGNUM CAPILLACEUM (Weiss) Schrank. Savage Cove, Aug. 7,

1924; South Hill, St. John's, Aug. 14, 1924; Trepassey, Aug. 16, 1924; Bay Bulls, Aug. 22, 1924; Ramea, Aug. 30, 1924.

#### ANDREAEACEAE

# ANDREAEA ALPESTRIS (Thed.) Schp. Bay Bulls, Aug. 20, 1924. FISSIDENTACEAE

FISSIDENS OSMUNDIOIDES (Sw.) Hedw. Flower Cove, July 30, 1924; Ship Cove, Sacred Bay, Aug. 11, 1925.

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#### DITRICHACEAE

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CERATODON PURPUREUS (L.) Brid. Common. DISTICHIUM CAPILLACEUM (Sw.) Bry. eur. Common on calcareous substrata throughout the Island.

DISTICHIUM INCLINATUM (Ehrh.) Bry. eur. Brig Bay, Aug. 5, 1924; Ship Cove, Sacred Bay, Aug. 9, 1925; Blanc Sablon, Labrador, Sept. 3, 1925.

DISTICHIUM HAGENII Ryan. Ship Cove, Sacred Bay, Aug. 11, 1925; Savage Cove, Aug. 29, 1925.

This interesting little species is very similar in general appearance to D. inclinatum but seems to be clearly separable by the curious arrangement of the peristome teeth in eight distinct groups of two teeth each. It is recorded from arctic North America by Biotherus in Die Laubmoose Fennoskandias and in the 2nd edition of Engler & Prantl's Pflanzenfamilien, Vol. 10: 166 but is not included by Mrs. E. G. Britton in her treatment of the genus in the North American Flora, Vol. 15, Part 1. It is evident that the species has been very imperfectly known from this continent and its discovery by Mr. Long in Newfoundland is therefore especially noteworthy.

#### SELIGERACEAE

SELIGERA DONNIANA (Sm.) C. M. Flower Cove, July 30, 1924. This seems to be the first authentic record for this minute species northeast of Maine. It is a rare moss under any circumstances and its occurrence in northern Newfoundland is a very interesting range extension.

#### DICRANACEAE

ANISOTHECIUM RUBRA (Huds.) Lindb. Governors Island, Bay of Islands, Sept. 3, 1926.

DICRANELLA CERVICULATA (Hedw.) Schp. Trepassey, Aug. 16, 1924; Burgeo, Sept. 9, 1926.

DICRANELLA HETEROMALLA (L.) Schimp. Curling, Aug. 11, 1924; Burgeo, Aug. 30, 1924.

DICRANELLA SECUNDA (Sw.) Lindb. Bard Harbor, St. John Bay, July 27, 1925.

PARALEUCOBRYUM LONGIFOLIUM (Ehrh.) Loesk. Rose Blanche, Aug. 31, 1924.

CYNODONTIUM POLYCARPUM (Ehrh.) Schp. Blanc Sablon, Labrador, Sept. 3, 1925.

OREOWEISIA SERRULATA (Func.) De Not. Quirpon Island, Aug. 7, 1925.

ONCOPHORUS WAHLENBERGII Brid. Mt. Moriah, Aug. 11, 1924.

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ONCOPHORUS VIRENS (Sw.) Brid. Flower Cove, July 14, 1925; Quirpon Island, Aug. 7, 1925.

KIAERIA STARKEI (Web. & Mohr.) Hag. Bard Harbor, St. John Bay, Aug. 13, 1925.

KIAERIA BLYTTII (Schp.) Broth. Bard Harbor, St. John Bay, Aug. 13, 1925.

DICRANUM ELONGATUM Schleich. Bard Harbor, St. John Bay,
July 27, 1925.
DICRANUM GROELANDICUM Brid. Quirpon Island, Aug. 6, 1925.
DICRANUM FUSCESCENS TURN. Port aux Basques, July 20, 1924;
Whitbourne, Aug. 25, 1924; Gaulton, Aug. 29, 1924; Bard Harbor,
St. John Bay, July 27, 1925, Aug. 13, 1925, Aug. 26, 1925.
DICRANUM FUSCESCENS TURN. var. FALCIFOLIUM Braithw. Bard
Harbor, St. John Bay, July 27, 1925.

DICRANUM FUSCESCENS Turn. var. CONGESTUM (Brid.) Husn. Bard Harbor, St. John Bay, Aug. 13, 1925.

DICRANUM BERGERI Bland. Flower Cove, July 29, 1924; Quirpon Island, Aug. 7, 1925.

DICRANUM BONJEANI De Not. Port aux Basques, July 20, 1924; Flower Cove, Aug. 1, 1924; Brig. Bay, Aug. 7, 1924; Bay Bulls, Aug. 20, 1924; Argentia, Aug. 27, 1924; Rose Blanche, Aug. 31, 1924; Ha-Ha Point, Aug. 5, 1925; Quirpon Island, Aug. 7, 1925; Bard Harbor, St. John Bay, Aug. 13, 1925. DICRANUM BONJEANI De Not. var. JUNIPERIFOLIUM (Sendt.)

Braithw. Flower Cove, July 27, 1924.

DICRANUM SCOPARIUM (L.) Hedw. Brig Bay, Aug. 5, 1924; Whitbourne, Aug. 25, 1924; Gaulton, Aug. 29, 1924.

DICRANUM MAJUS Turn. Flower Cove, July 24, 1924, July 12, 1925; Savage Cove, Aug. 7, 1925; Mt. Moriah, Aug. 11, 1924; Sandy (Poverty) Cove, July 25, 1925; Ship Cove, Sacred Bay, Aug. 11, 1925; Tweed Island, Bay of Islands, Sept. 2, 1926.

ORTHODICRANUM MONTANUM (Hedw.) Loeske. Bard Harbor, St. John Bay, Aug. 13, 1925.

ORTHODICRANUM FLAGELLARE (Hedw.) Loeske. Ramea, Aug. 30, 1924.

#### LEUCOBRYACEAE

LEUCOBRYUM GLAUCUM (L.) Schp. Port aux Basques, Aug. 31, 1924.

#### ENCALYPTACEAE

ENCALYPTA RHABDOCARPA Schwaegr. Brig Bay, Aug. 5, 1924; Mistaken Cove, July 11, 1925; Brandy Island, July 18, 1925; Brig Bay, Aug. 4, 1925; Ha-Ha Point, Aug. 5, 1925; Ship Cove, Sacred Bay, Aug. 9, 1925; Dog Peninsula, Aug. 25, 1925.

#### POTTIACEAE

GYMNOSTOMUN RUPESTRE Schleich. Brig Bay, Aug. 5, 1924.

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HYMENOSTYLIUM CURVIROSTRE (Ehrh.) Lindb. St. John Island, July 31, 1925; Ha-Ha Point, Aug. 5, 1925; Anse aux Sauvages Aug. 11, 1925; Cape Raven, Mauve (Noddy) Bay, Aug. 12, 1925.

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TORTELLA TORTUOSA (L.) Limp. Port aux Basques, July 23, 1924; Flower Cove, July 30, 1924; Brig Bay, Aug. 5, 1924; Sandy (Poverty) Cove, July 25, 1925.

DIDYMODON RUBELLUS (Hoffm.) Bry. eur. Brig. Bay, Aug. 5, 1924; Ha-Ha Point, July 17, 1925; Brandy Island, July 18, 1925; Flower Cove, July 23, 1925; Ship Cove, Sacred Bay, Aug. 11, 1925. BARBULA VINEALIS Brid. Brid Bay, Aug. 5, 1924; Flower Cove, July 14, 1925.

POTTIA HEIMII (Hedw.) Bry. eur. Sandy Cove, Ingornachoix Bay, Aug. 9, 1924.

STEGONIA LATIFOLIA (Schwaegr.) Vent. Doctor Hill, Highlands of St. John, Aug. 24, 1925.

DESMATODON SYSTYLIUS Bry. eur. Doctor Hill, Highlands of St. John, Aug. 24, 1925.

DESMATODON CERNUUS (Hub.) Bry. eur. Flower Cove, Aug. 2, 1924; Sandy Cove, Ingornachoix Bay, Aug. 9, 1924; Bard Harbor, St. John Bay, July 29, 1925; Aug. 19, 1925; St. John Island, July 31, 1925.

TORTULA RURALIS (L.) Ehrh. Brig Bay, Aug. 4, 1925. TORTULA NORVEGICA (Web. fil.) Lindb. Brig Bay, Aug. 4, 1925.

#### GRIMMIACEAE

GRIMMIA APOCARPA (L.) Hedw. Flower Cove, July 30, 1924; Brig Bay, Aug. 4, 1925; Cape Raven, Mauve (Noddy) Bay, Aug. 12, 1925; Bard Harbor, St. John Bay, Aug. 13, 1925; Savage Cove, Aug. 29, 1925.

GRIMMIA ALPICOLA Sw. Harbor Breton, Aug. 29, 1924.

GRIMMIA ALPICOLA Sw. var LATIFOLIA (Zett.) Hag. Bard Harbor, St. John Bay, Aug. 13, 1925.

RHACOMITRIUM FASICULARE (Schrad.) Brid. Bay Bulls, Aug. 20, 1924; Harbor Breton, Aug. 29, 1924; Rencontre, Aug. 30, 1924. RHACOMITRIUM HETEROSTICHUM (Hedw.) Brid. var. GRACILESCENS Bry. eur. Harbor Breton, Aug. 29, 1924.

RHACOMITRIUM HYPNOIDES (L.) Lindb. Port aux Basques, July 21, 1924, Aug. 20, 1924, Aug. 31, 1924; Flower Cove, July 30, 1924; Bay Bulls, Aug. 20, 1924; Four Mile Cove, July 20, 1925; Bard Harbor, St. John Bay, July 27, 1925; South Head, Bay of Islands, Sept. 1, 1926.

RHACOMITRIUM CANESCENS (Weis., Tim.) Brid. Blanc Sablon, Labrador, Sept. 3, 1925.

#### FUNARIACEAE

FUNARIA MICROSTOMA Bry. eur. Cape Norman, Aug. 13, 1925. FUNARIA HYGROMETRICA (L.) Sibth. Port aux Basques, July 23,

# 6 1924, Aug. 31, 1924; Flower Cove, Aug. 1, 1924, July 26, 1925; Curling, Aug. 11, 1924.

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#### SPLACHNACEAE

TAYLORIA SPLACHNOIDES (Schleich.) Hook. Bard Harbor, St. John Bay, July 27, 1925.

TETRAPLODON BRYOIDES (Zoeg.) Lindb. Port aux Basques, July 20, 1924; St. John Island, July 31, 1925. TETRAPLODON BRYOIDES (Zoeg.) Lindb. var. CAVIFOLIUS (Schp.) Mol. Blanc Sablon, Labrador, Sept. 3, 1925. TETRAPLODON BRYOIDES (Zoeg.) Lindb. var. PARADOXUS (R. Br.) Hag. Savage Cove, July 14, 1925; Four Mile Cove, July 20, 1925. TETRAPLODON ANGUSTATUS (L. f., Sw.) Bry. eur. Bard Harbor, St. John Bay, Aug. 3, 1925. SPLACHNUM PEDUNCULATUM (Huds.) Lind. Bard Harbor, St. John Bay, July 19, 1925. SPLACHNUM AMPULLACEUM L. Savage Cove, Aug. 7, 1924; Trepassey, Aug. 16, 1924.

#### BRYACEAE

WEBERA CRUDA (L.) Bruch. Bard Harbor, St. John Bay, July 27, 1925; Ship Cove, Sacred Bay, Aug. 9, 1925; Cape Norman, Aug. 13, 1925.

WEBERA NUTANS (Schreb.) Hedw. Common. WEBERA COMMUTATA Schp. Bard Harbor, St. John Bay, Aug. 19, 1925. WEBERA PROLIGERA (Lindb.) Kindb. Bard Harbor, St. John Bay, July 27, 1925. ANOMOBRYUM CONCINNATUM (Spruc.) Lindb. Flower Cove, July 23, 1925. LEPTOBRYUM PYRIFORME (L.) Wils. Flower Cove, July 27, 1924, Aug. 1, 1924; St. Barbe, Aug. 4, 1924; Brig Bay, Aug. 8, 1924; Ha-Ha Point, Aug. 5, 1925. BRYUM PENDULUM (Hsch.) Schp. Boat Harbor, July 19, 1925; St. John Island, July 31, 1925; Anse aux Sauvages, Aug. 9, 1925. BRYUM CALOPHYLLUM R. Br. St. Barbe, Aug. 4, 1924. BRYUM KNOWLTONI Barnes? Bard Harbor, St. John Bay, Aug. 19, 1925.

This collection consists of a very small tuft with but a few capsules in rather poor condition and the determination is therefore uncertain.

#### Bryum Longii Bartr. sp. nov.

#### Plate 158. Figs. A-H.

Plants small in dense yellowish green tufts, reddish Synoicous. below; stems 5-10 mm. high, branched, closely matted together with

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radicles below, branches short, densely foliate; leaves ovate, short acuminate, concave, about 1.5 mm. long, the lower smaller, margin nearly entire or minutely denticulate in the upper third, revolute in the lower half; costa reddish, ending below the apex in the lower leaves, percurrent or short excurrent into a more or less recurved point in the upper leaves; leaf cells lax, hexagonal-rhomboid above, up to 65 µ long by 20 µ wide, about two rows at the margin narrow and elongate forming a yellowish border, toward the base rectangular, up to 6 times as long as wide; seta 10-14 mm. long, red; capsule pedulous, 2-2.25 mm. long, pryiform, reddish brown, contracted to a short, wrinkled neck when dry, not contracted under the mouth, rather glossy, exothecal cells thin walled; lid convex, apiculate; peristome pale, teeth pale yellow, not darker at the base, finely papillose, hyaline at the tip, inner peristome rudimentary, very fragile and delicate, consisting of a basal membrane about one-third the height of the teeth without segments or cilia; annulus large; spores punctulate, 18-22 µ in diameter. TYPE: sandy, clayey spots on limestone rock barrens, Boat Harbor, Newfoundland, July 19, 1925, B. Long, No. 228. Also from Savage Cove, on limestone barrens, July 14, 1925; Cape Norman, on limestone barrens, Aug. 13, 1925; Sandy (Poverty) Cove, clayey soil on limestone barrens, July 13, 1925; Black Cove, Big Brook, peat on limestone rock, July 16, 1925; Flower Cove July 30, 1924.

When this beautiful little moss is in fruit the abundance of bright ruddy capsules must present one of the striking bryological features of the localities where it is found. The species corresponds very closely to the description of *Bryum globosum* Lindb., which has been recorded from arctic North America, in everything but the imperfect inner peristome which, in all of the capsules examined from the various localities in Mr. Long's collection, shows only a basal membrane without any evidence of segments or cilia. It is a privilege to be able to associate Mr. Long's name with such a distinct species in this very complex genus.

BRYUM PALLENS Sw. St. Barbe, Aug. 7, 1925; Flower Cove, July 23, 1925; Ha-Ha Point, Aug. 5, 1925; Ship Cove, Sacred Bay, Aug. 9, 1925.

BRYUM INCLINATUM (Sw.) Bland. Flower Cove, July 27, 1924,
July 29, 1924, July 30, 1924, Aug. 1, 1924; Brig Bay, Aug. 6, 1924;
Curling, Aug. 11, 1924; Bard Harbor, St. John Bay, July 29, 1925;
Ship Cove, Sacred Bay, Aug. 9, 1925; Anse aux Sauvages, Aug. 11,
1925; Wood's Island, Bay of Islands, Sept. 3, 1926.
BRYUM AFFINE (Bruch.) Lindb. Flower Cove, July 10, 1925.
BRYUM CAPILLARE L. St. Barbe, Aug. 4, 1924; Flower Cove, July
23, 1925.

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BRYUM CAPILLARE L. var. OBCONICUM Huebn. Bard Harbor, St. John Bay, Aug. 19, 1925.

BRYUM VENTRICOSUM Dicks. Brig Bay, Aug. 7, 1924; Quirpon Island, Aug. 7, 1925.

BRYUM BIMUM Schreb. Mistaken Cove, July 10, 1925.
BRYUM CAESPITICUM L. Brig Bay, Aug. 8, 1924; Sandy Cove,
Ingornichoix Bay, Aug. 9, 1924; Curling, Aug. 11, 1924.
BRYUM ARGENTEUM L. Burgeo, Aug. 30, 1924.

#### MNIACEAE

MNIUM HORNUM L. Rencontre, Aug. 30, 1924. MNIUM ROSTRATUM Schrad. Flower Cove, July 27, 1924, July 29, 1924.

MNIUM SUBGLOSUM Bry. eur. Flower Cove, July 27, 1924. MNIUM PUNCTATUM (L., Schreb.) Hedw. var. ELATUM Schp. Flower Cove, July 12, 1925; Anse aux Sauvages, Aug. 11, 1925; Yankee Point, Aug. 16, 1925.

CINCLIDIUM STYGIUM Sw. Flower Cove, July 29, 1924; Brig Bay, Aug. 7, 1924.

#### AULACOMNIACEAE

AULACOMNIUM PALUSTRE (L.) Schwaeger. Flower Cove, July 29, 1924, Aug. 1, 1924; St. Barbe, Aug. 4, 1924.

#### MEESEACEAE

AMBLYODON DEALBATUS (Dicks.) Palis. Boat Harbor, July 19, 1925; Cape Raven, Mauve (Noddy) Bay, Aug. 12, 1925.

MEESEA TRICHODES (L.) Spruc. Flower Cove, July 27, 1924, July 30, 1924; Brig Bay, Aug. 7, 1924; Ship Cove, Sacred Bay, Aug. 9, 1925; Savage Cove, Aug. 29, 1925.

MEESEA TRICHODES (L.) Spruc. var. ANGUSTIFOLIA (Brid.) Hag. Cape Norman, Aug. 13, 1925.

The plants in this collection are very different in appearance from those of the other numbers that are typical of the species and seem to be clearly referable to the variety which apparently has been recognized only in Norway heretofore.

#### CATOSCOPIACEAE

CATOSCOPIUM NIGRITUM (Hedw.) Brid. Brig Bay, Aug. 7, 1924; Sandy (Poverty) Cove, July 25, 1925; St. John's Island, July 31, 1925; Yankee Point, Aug. 16, 1925.

#### BARTRAMIACEAE

PLAGIOPUS OEDERI (Gunn.) Limp. Bard Harbor, St. John Bay, Aug. 26, 1925.

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BARTRAMIA POMIFORMIS (L. ex p.) Hedw. Bard Harbor, St. John Bay, Aug. 19, 1925.

BARTRAMIA ITHYPHYLLA (Hall.) Brid. Bard Harbor, St. John Bay, Aug. 19, 1925.

PHILONOTIS FONTANA (L.) Brid. Bard Harbor, St. John Bay, July 27, 1925; Cape Raven, Mauve (Noddy) Bay, Aug. 12, 1925.

#### ORTHOTRICHACEAE

ORTHOTRICHUM ANOMALUM Hedw. Brig Bay, Aug. 5, 1924; Bard Harbor, St. John Bay, Aug. 19, 1925; Doctor Hill, Highlands of St. John, Aug. 24, 1925. ORTHOTRICHUM BLYTTII Schp. Ha-Ha Point, Aug. 5, 1925. ULOTA AMERICANA (Palis.) Limp. Brig Bay, Aug. 5, 1924. ULOTA LUDWIGII (Brid.) Brid. Whitbourne, Aug. 25, 1924. ULOTA CRISPULA Bruch. Bard Harbor, St. John Bay, July 27, 1925, Aug. 19, 1925. ULOTA PHYLLANTHA Brid. Argentia, Aug. 26, 1924.

#### FONTINALACEAE

FONTINALIS ANTIPYRETICA L. Trepassey, Aug. 16, 1924. FONTINALIS DALECARLICA Schp. Whitbourne, Aug. 25, 1924.

#### CLIMACIACEAE

CLIMACIUM DENDROIDES (Dill. L.) Web. Flower Cove, July 27-29, 1924.

#### HEDWIGIACEAE

HEDWIGIA ALBICANS (Web.) Lindb. Gaulton, Aug. 29, 1924.

#### THELIACEAE

MYURELLA JULACEA (Vill.) Bry. eur. Flower Cove, July 30, 1924; Brig Bay, Aug. 5, 1924; Ha-Ha Point, July 17, 1925.

#### LESKEACEAE

LESKEELLA NERVOSA (Schwaegr.) Loeske. Bay Bulls, Aug. 4, 1925.

#### THUIDIACEAE

THUIDIUM DELICATULUM (Dill. L.) Mitt. Brig Bay, Aug. 5, 1924; Savage Cove, Aug. 7, 1924.

ABIETINELLA ABIETINA (Dill. L.) C. M. Flower Cove, July 27, 1924; Bard Harbor, St. John Bay, Aug. 31, 1925.

#### AMBLYSTEGIACEAE

CRATONEURUM GLAUCUM (Lam.) C. Jens. var. FALCATUM (Brid.) C. Jens. Flower Cove, Aug. 1, 1924; Savage Cove, Aug. 7, 1924, Aug. 29, 1924.

CRATONEURUM FILICINUM (L.) Roth. Brandy Island, July 8, 1925.

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CAMPYLIUM STELLATUM (Schreb.) Lang. & C. Jens. Bay Bulls, Aug. 4, 1925.

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CAMPYLOPHYLLUM HALLERI (Sw.) Fleish. Flower Cove, July 31, 1924; Sandy (Poverty) Cove, July 25, 1924; Cape Norman, Aug. 13, 1925.

This is a rare species in North America but it seems to be rather well represented on the limestone areas of northern Newfoundland. LEPTODICTYUM RIPARIUM (L.) Warnst. St. Barbe, Aug. 4, 1924. AMBLYSTEGIUM SERPENS (L.) Bry. eur. Flower Cove, Aug. 2, 1924, July 10, 1925; St. Barbe, Aug. 4, 1924; Brig Bay, Aug. 5, 1924 (a slender form).

AMBLYSTEGIELLA SPRUCEI (Bruch.) Loesk. Brig Bay, Aug. 5, 1924.

DREPANOCLADUS UNCINATUS (Hedw.) Warnst. Flower Cove, July 30, 1924; Mt. Moriah, Aug. 11, 1924; Curling, Aug. 11, 1924; Harbor Breton, Aug. 29, 1924; Rencontre, Aug. 30, 1924; Bard Harbor, St. John Bay, July 27, 1925; Anse aux Sauvages, Aug. 11, 1925.

DREPANOCLADUS UNCINATUS (Hedw.) Warnst. var. PLUMULOSUM (Bry. eur.) Warnst. Quirpon Island, Aug. 6, 1925; Doctor Hill, Highlands of St. John, Aug. 24, 1925.

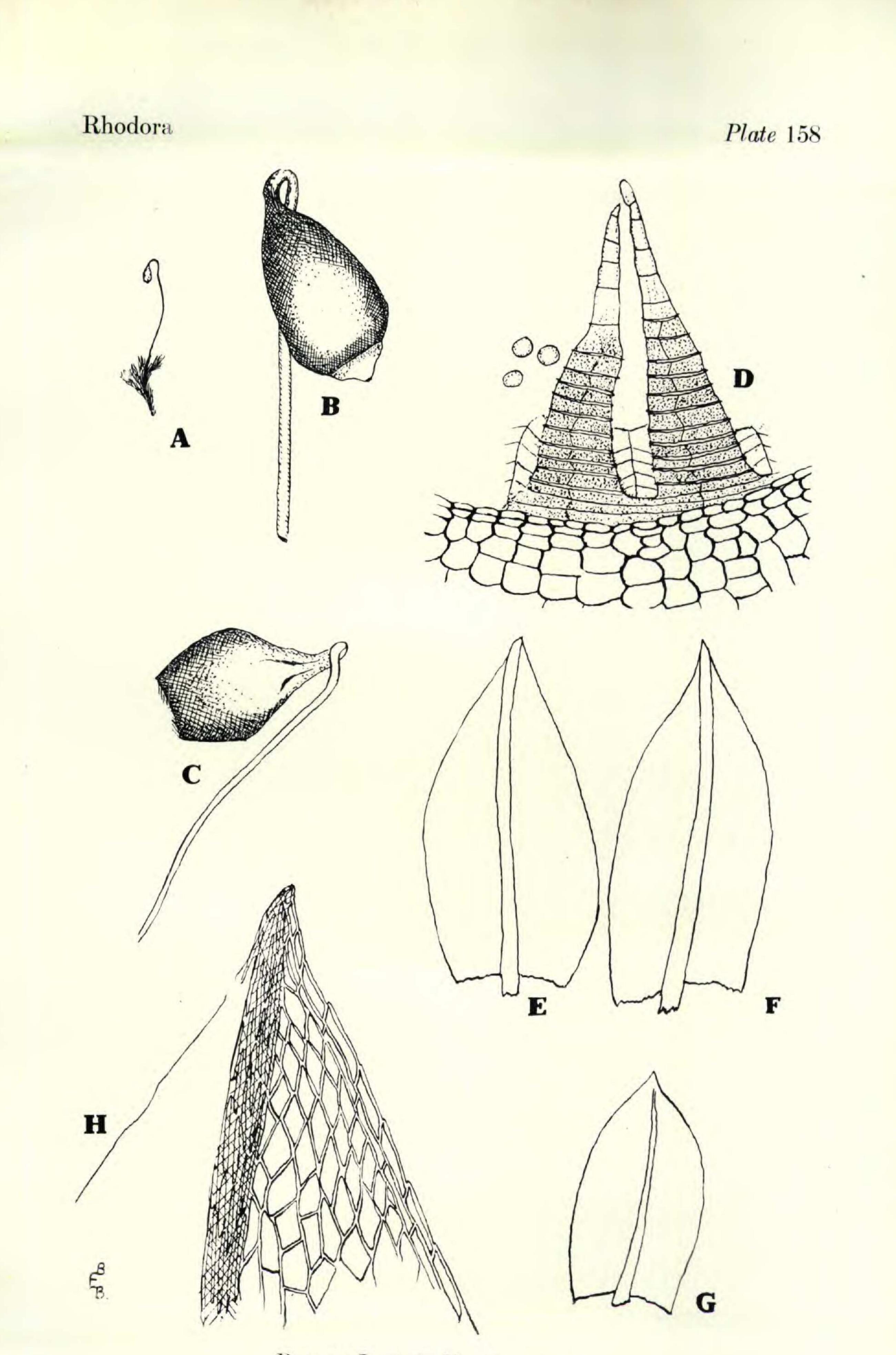
DREPANOCLADUS VERNICOSUS (Lindb.) Warnst. Flower Cove, July 28, 1924, Aug. 1, 1924; Quirpon Island, Aug. 7, 1925.

DREPANOCLADUS REVOLVENS (Sw.) Warnst. Quirpon Island, Aug. 7, 1925. DREPANOCLADUS FLUITANS (Dill.) Warnst. Savage Cove, Aug. 7, 1924.DREPANOCLADUS FLUITANS (Dill.) Warnst. var. FALCATUS (Bry. eur.) Warnst. Savage Cove, July 14, 1925. HYGROHYPNUM DILATATUM (Wils.) Loesk. Bard Harbor, St. John Bay, Aug. 19, 1925. CALLIERGON TURGESCENS (T. Jens.) Kindb. St. Barbe, Aug. 4, 1924; Savage Cove, Aug. 29, 1925. CALLIERGON GIGANTEUM (Schp.) Kindb. Flower Cove, Aug. 1, 1924.CALLIERGON SARMENTOSUM (Wahlenb.) Kindb. Quirpon Island, Aug. 6, 1925. CALLIERGON STRAMINEUM (Dicks.) Kindb. Rencontre, Aug. 30, 1924; Cape Raven, Mauve (Noddy) Bay, Aug. 12, 1925.

SCORPIDIUM SCORPIOIDES (L.) Limp. Flower Cove, July 30, 1924; Whitbourne, Aug. 25, 1924; Bard Harbor, St. John Bay, Aug. 26, 1925; South Head, Bay of Islands, Sept. 1, 1926.

#### BRACHYTHECIACEAE

TOMENTHYPNUM NITENS (Schreb.) Loesk. Flower Cove, July 28, 1924; Savage Cove, Aug. 29, 1925.



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BRACHYTHECIUM SALEBROSUM (Hoffm.) Bry. eur. Flower Cove, July 27, 1924; Brig Bay, Aug. 8, 1924; Rose Blanche, Aug. 31, 1924. BRACHYTHECIUM REFLEXUM (Stark.) Bry. eur. Savage Cove, Aug. 7, 1924.

#### ENTODONTACEAE

PLEUROZIUM SCHREBERI (Willd.) Mitt. Common.

#### PLAGIOTHECIACEAE

PLAGIOTHECIUM SILVATICUM (Huds.) Bry. eur. Mt. Moriah, Aug. 11, 1924.

PLAGIOTHECIUM DENTICULATUM (L.) Bry. eur. Bard Harbor, St. John Bay, July 27, 1925.

PLAGIOTHECIUM STRIATELLUM (Brid.) Lindb. Port aux Basques, July 21, 1924; Bard Harbor, St. John Bay, July 27, 1925.

#### SEMATOPHYLLACEAE

BROTHERELLA DELICATULA (James) Fleish. South Head, Bay of Islands, Sept. 1, 1926.

#### HYPNACEAE

HYPNUM PALLESCENS Hedw. Bard Harbor, St. John Bay, Aug. 19, 1925.

HYPNUM IMPONENS Hedw. Port aux Basques, July 21, 1924. HYPNUM BAMBERGERI Schp. Ha-Ha Point, Aug. 5, 1925. HYPNUM CUPRESSIFORME L. Flower Cove, July 30, 1924; Brig Bay, Aug. 5, 1924; Argentia, Aug. 27, 1924; Gaulton, Aug. 29, 1924; Rencontre, Aug. 30, 1924; Rose Blanche, Aug. 31, 1924. HYPNUM VAUCHERI Lesq. Brig Bay, Aug. 5, 1924. BREIDLERIA ARCUATA (Lindb.) Loesk. Brig Bay, Aug. 5, 1924. ISOPTERYGIUM PULCHELLUM (Dicks.) Jaeg. Bard Harbor, St. John Bay, Aug. 19, 1925.

PTILIUM CRISTA-CASTRENSIS (L.) De Not. Savage Cove, Aug. 7, 1924; Brig Bay, Aug. 7, 1924; Bard Harbor, St. John Bay, Aug. 26, 1925; South Head, Bay of Islands, Sept. 1, 1926.

#### RHYTIDIACEAE

RHYTIDIUM RUGOSUM (Ehrh.) Kindb. Flower Cove, July 27, 1924. RHYTIDIADELPHUS SQUARROSUS (L.) Warnst. Flower Cove, July 27, 1924.

RHYTIDIADELPHUS TRIQUETRUS (L.) Warnst. Brig Bay, Aug. 5, 1924; Savage Cove, Aug. 7, 1924.

RHYTIDIADELPHUS LOREUS (Dill. L.) Warnst. Mt. Moriah, Aug. 11, 1924.

#### HYLOCOMIACEAE

HYLOCOMIUM PROLIFERUM (L.) Lindb. Flower Cove, July 27-29, 1924, Aug. 1, 1924; Brig Bay, Aug. 7, 1924; Whitbourne, Aug.